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1673

Henkel Corporation

Parker+Amchem

December 19, 1989

O. WMD
CC: RF

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DEC 26 1989

U. S. EPA REGION 5
OFFICE OF REGIONAL ADMINISTRATOR

U.S. EPA, Region V
Regional Administrator
230 W. Dearborn Street
Chicago, Illinois 60604

Subject: Certification and Demonstration...40 CFR 268.8

Reference: Parker+Amchem
M1D057676124

Dear Sir:

We are an R&D facility and generate small quantities of various hazardous wastes. The only reasonable means available to us for disposal of these lab wastes is incineration. Therefore in accordance with the above subject requirements the following Waste Codes U228, U239, U080, U220 are being submitted for incineration to Ensco, El Dorado, Ar. followed by landfill of residuals.

I certify under penalty of law that the requirements of 40 CFR 268.8 (a) (1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Yours truly,

PARKER+AMCHEM

George J. Beyer
Technical Manager

GJB:dg



ENSCO, INC.
AMERICAN OIL ROAD
EL DORADO, AR 71730

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

INSTRUCTIONS

This Land Disposal Restriction Notification Form has been specifically designed to provide ENSCO information required to treat, store, or dispose of your waste.

Hazardous waste regulations (40 CFR 268) require generators to provide a land disposal restriction notification with each manifest used for shipment of a restricted waste. This form has been designed to combine the notification requirements for all restricted wastes onto one form. For a shipment of only one category of restricted waste, read the instructions and complete the section of the form applicable to that waste. For shipments involving multiple categories of waste (i.e., Spent Solvents, California List, Hard Hammer, and/or Soft Hammer) complete only those sections applicable to the categories of waste on the shipment.

Answers must be provided for all questions/items for each applicable category of restricted waste on the attached form. Remove the instruction pages and print (ink only) or type the answer or mark the appropriate blanks so that all pages are clearly legible. If a particular category of waste is not applicable to your waste stream(s), you must signify by leaving that section blank. If additional information is submitted to complete an answer, indicate on the form that the additional information is attached as Attachment 1, Attachment 2, etc. This completed form and any attachments must accompany the manifest with the shipment.

SPECIAL INSTRUCTIONS

Hazardous waste regulations require the items set forth below be provided to the TSD.

PART I - GENERATOR INFORMATION

Manifest number - indicate the manifest number for applicable waste stream(s) listed on this form. If additional manifests are required for the shipment, each manifest requires its own separate Land Disposal Notification Form.

PART II - NOTIFICATION

A. Spent Solvent Wastes

If you are the generator of restricted Spent Solvent Waste(s) as specified under 40CFR 268.30, shipping to ENSCO, please mark the blank identifying that the Spent Solvent Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided, list all USEPA Hazardous Waste Codes applicable to the Restricted Spent Solvent wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land disposal restrictions, copies of that data must be attached.

B. California List Wastes

If you are the generator of restricted California List Waste(s) as specified under 40CFR 268.32 shipping to ENSCO, please mark the blank identifying that the California List Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided list all USEPA Hazardous Waste Codes applicable to the Restricted California List wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land



ENSCO, INC.
AMERICAN OIL ROAD
EL DORADO, AR 71730

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

I. GENERAL INFORMATION

GENERATOR NAME Porter A. Kramer MANIFEST NO. AR-420367
ADDRESS 32100 Stephens COMPLETED BY Jack A. Kramer
Madison Heights, MI 48071 TITLE Research Scientist
USEPA ID NO. MRD 057 616 124 DATE 11/13/89

II. NOTIFICATION

This form is submitted to ENSCO, Inc. in accordance with regulations as set forth in 40CFR Part 268 governing land disposal of certain restricted hazardous wastes. In accordance with the requirements specified above, I have checked the appropriate blank(s) below outlining how my waste(s) must be managed.

A. SPENT SOLVENT WASTES

☐
(check here)

This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) _____

_____. These wastes are restricted from land disposal as specified under 40CFR 268.30 and are identified as Spent Solvent Wastes. The constituent composition listed above is based upon:

- _____ waste analysis data (attached) or
_____ my thorough knowledge of the waste stream.

The above referenced waste(s) must be treated to meet the treatment standard expressed as Constituent Concentration in the Waste Extract as outlined in 40CFR 268.41 Table CCWE below.

Table CCWE—Constituent
Concentrations in Waste Extract

F001—F005 spent solvents	Concentration (in mg/l)	
	Wastewaters containing spent solvents	All other spent solvent wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride .....	.05	.96
Chlorobenzene .....	.15	.05
Cresols (and cresylic acid)	2.82	.75
Cyclohexanone .....	.125	.75
1,2-Dichlorobenzene .....	.65	.125
Ethyl acetate .....	.05	.75
Ethylbenzene .....	.05	.053
Ethyl ether .....	.05	.75
Isobutanol	5.0	5.0
Methanol .....	.25	.75
Methylene chloride .....	.20	.96
Methylene chloride (from the pharmaceutical industry)	12.7	.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Additional restricted wastes (California List, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

B. CALIFORNIA LIST WASTES



This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) 3002

These wastes are restricted from land disposal under 40CFR 268.32 and are identified as California List Waste. The constituent compositions used for identification are based upon:

_____ waste analysis data (attached) or

☒ my thorough knowledge of the waste stream.

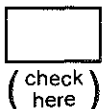
The above referenced waste(s) must be treated to meet the treatment standards as set forth in 40CFR 268 Subpart D, or where no treatment standard exists, the waste must be treated in accordance with the requirements specified in 40CFR 268.32 as follows:

Liquid hazardous wastes containing the following contaminants must be treated to at least the specified levels or must be rendered non-liquid per the paint filter test.

- (1) Free cyanides at concentrations greater than or equal to 1000 mg/l
- (2) One (or more) of these metals (or elements) at concentrations greater than or equal to those specified below:
 - a. Arsenic and/or compounds (as As) 500 mg/l;
 - b. Cadmium and/or compounds (as Cd) 100 mg/l;
 - c. Chromium VI and/or compounds (as CrVI) 500 mg/l;
 - d. Lead and/or compounds (as Pb) 500 mg/l;
 - e. Mercury and/or compounds (as Hg) 20 mg/l;
 - f. Nickel and/or compounds (as Ni) 134 mg/l;
 - g. Selenium and/or compounds (as Se) 100 mg/l;
 - h. Thallium and/or compounds (as Th) 130 mg/l.
- ☒ (3) Liquid hazardous wastes having a pH less than or equal to two (2.0).
- (4) Wastewaters containing Halogenated Organic Compounds (HOC's) less than 1000 mg/l; or for liquids and non-liquid HOC non-wastewaters greater than 1000 mg/l. The waste must be incinerated in an incinerator operating in accordance with 40CFR 264 and 265 or in a boiler or industrial furnace.
5. Liquid hazardous wastes containing PCB's at concentrations greater than or equal to 50 ppm and less than 500 ppm must be incinerated in accordance with 40 CFR 761.60 or 761.70. Incineration of these wastes must also be in accordance with 40CFR 264, 265 and 266.

Additional restricted wastes (Solvent, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

C. HARD HAMMER WASTES



This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) _____

These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

The above referenced waste(s) must be treated to the appropriate treatment standard as set forth in 40CFR 268.41, 268.42, and/or 268.43. The applicable treatment standard for each waste code is listed below or provided on additional attached sheets:

USEPA Hazardous Waste Code _____

The constituent composition used for identification is based upon:

_____ waste analysis data (attached) or

_____ my thorough knowledge of the waste stream.

The treatment standard is expressed as _____
(Specify treatment technology)

Specify the applicable treatment standard in the appropriate space below:

(For non-wastewater treatment standards, specify by marking whether the standard is a Constituent Concentration in the Waste (CCW) or Extract (CCWE). Note: Certain waste codes may have both.)

Non-Wastewater (Waste Code)		Specify Concentrations in mg/l or mg/kg	
CCW	CCWE	mg/kg	mg/l

Wastewater (Waste Code)	Specify Concentrations as mg/l

If additional space is required or additional Hard Hammer waste codes are listed on the manifest attach Hard Hammer Continuation Attachment.

Additional restricted wastes (Solvents, California List, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.



D. SOFT HAMMER WASTES

This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) U080, U220, U228. These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

No treatment standards exist for the above referenced waste(s) and therefore I have determined through a good faith effort that incineration prior to land disposal is the practically available treatment which provides the greatest environmental benefit; that this waste is the subject of a valid Demonstration and Certification that I have submitted to my regional administrator; and that the waste(s) must be treated in accordance with my Demonstration as required by 40CFR 268.8.

____ USEPA Hazardous Waste Code

The constituent composition used for identification is based upon:

____ waste analysis data (attached) or
☒ my thorough knowledge of the waste stream.

____ Associated Demonstration Attached (Y/N)

____ Associated Certification Attached (Y/N)

(Copy of demonstration required for first shipment of waste only)

Please attach Soft Hammer Continuation Attachment for additional Soft Hammer waste codes listed on the manifest.

Additional restricted wastes (Solvents, California List, Hard Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

III. CERTIFICATION OF NOTIFICATION

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Dr. J. A. Kram
Signature

Research Scientist
Title

11/12/89
Date



ENSCO, INC.
AMERICAN OIL ROAD
EL DORADO, AR 71730

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

INSTRUCTIONS

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Answers must be provided for all questions/items for each applicable category of restricted waste on the attached form. Remove the instruction pages and print (ink only) or type the answer or mark the appropriate blanks so that all pages are clearly legible. If a particular category of waste is not applicable to your waste stream(s), you must signify by leaving that section blank. If additional information is submitted to complete an answer, indicate on the form that the additional information is attached as Attachment 1, Attachment 2, etc. This completed form and any attachments must accompany the manifest with the shipment.

SPECIAL INSTRUCTIONS

Hazardous waste regulations require the items set forth below be provided to the TSD.

PART I - GENERATOR INFORMATION

Manifest number - indicate the manifest number for applicable waste stream(s) listed on this form. If additional manifests are required for the shipment, each manifest requires its own separate Land Disposal Notification Form.

PART II - NOTIFICATION

A. Spent Solvent Wastes

If you are the generator of restricted Spent Solvent Waste(s) as specified under 40CFR 268.30, shipping to ENSCO, please mark the blank identifying that the Spent Solvent Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided, list all USEPA Hazardous Waste Codes applicable to the Restricted Spent Solvent wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land disposal restrictions, copies of that data must be attached.

B. California List Wastes

If you are the generator of restricted California List Waste(s) as specified under 40CFR 268.32 shipping to ENSCO, please mark the blank identifying that the California List Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided list all USEPA Hazardous Waste Codes applicable to the Restricted California List wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land



ENSCO, INC.
AMERICAN OIL ROAD
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LAND DISPOSAL RESTRICTION NOTIFICATION FORM

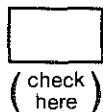
I. GENERAL INFORMATION

GENERATOR NAME Parker-Archery MANIFEST NO. AR-420368
ADDRESS 32100 Stephenson Hwy COMPLETED BY Jack A. Kramer
Madison Heights, MI 48071 TITLE Research Scientist
USEPA ID NO. MID 057 676 124 DATE 11/13/87

II. NOTIFICATION

This form is submitted to ENSCO, Inc. in accordance with regulations as set forth in 40CFR Part 268 governing land disposal of certain restricted hazardous wastes. In accordance with the requirements specified above, I have checked the appropriate blank(s) below outlining how my waste(s) must be managed.

A. SPENT SOLVENT WASTES



This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) _____.

These wastes are restricted from land disposal as specified under 40CFR 268.30 and are identified as Spent Solvent Wastes. The constituent composition listed above is based upon:

- _____ waste analysis data (attached) or
_____ my thorough knowledge of the waste stream.

The above referenced waste(s) must be treated to meet the treatment standard expressed as Constituent Concentration in the Waste Extract as outlined in 40CFR 268.41 Table CCWE below.

Table CCWE—Constituent
Concentrations in Waste Extract

F001—F005 spent solvents	Concentration (in mg/l)	
	Wastewaters containing spent solvents	All other spent solvent wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride .....	.05	.96
Chlorobenzene .....	.15	.05
Cresols (and cresylic acid)	2.82	.75
Cyclohexanone .....	.125	.75
1,2-Dichlorobenzene .....	.65	.125
Ethyl acetate .....	.05	.75
Ethylbenzene .....	.05	.053
Ethyl ether .....	.05	.75
Isobutanol	5.0	5.0
Methanol .....	.25	.75
Methylene chloride .....	.20	.96
Methylene chloride (from the pharmaceutical industry)	12.7	.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Additional restricted wastes (California List, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

B. CALIFORNIA LIST WASTES



This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) _____.

These wastes are restricted from land disposal under 40CFR 268.32 and are identified as California List Waste. The constituent compositions used for identification are based upon:

- _____ waste analysis data (attached) or
_____ my thorough knowledge of the waste stream.

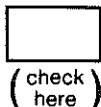
The above referenced waste(s) must be treated to meet the treatment standards as set forth in 40CFR 268 Subpart D, or where no treatment standard exists, the waste must be treated in accordance with the requirements specified in 40CFR 268.32 as follows:

Liquid hazardous wastes containing the following contaminants must be treated to at least the specified levels or must be rendered non-liquid per the paint filter test.

- (1) Free cyanides at concentrations greater than or equal to 1000 mg/l
- (2) One (or more) of these metals (or elements) at concentrations greater than or equal to those specified below:
 - a. Arsenic and/or compounds (as As) 500 mg/l;
 - b. Cadmium and/or compounds (as Cd) 100 mg/l;
 - c. Chromium VI and/or compounds (as CrVI) 500 mg/l;
 - d. Lead and/or compounds (as Pb) 500 mg/l;
 - e. Mercury and/or compounds (as Hg) 20 mg/l;
 - f. Nickel and/or compounds (as Ni) 134 mg/l;
 - g. Selenium and/or compounds (as Se) 100 mg/l;
 - h. Thallium and/or compounds (as Th) 130 mg/l.
- (3) Liquid hazardous wastes having a pH less than or equal to two (2.0).
- (4) Wastewaters containing Halogenated Organic Compounds (HOC's) less than 1000 mg/l; or for liquids and non-liquid HOC non-wastewaters greater than 1000 mg/l. The waste must be incinerated in an incinerator operating in accordance with 40CFR 264 and 265 or in a boiler or industrial furnace.
5. Liquid hazardous wastes containing PCB's at concentrations greater than or equal to 50 ppm and less than 500 ppm must be incinerated in accordance with 40 CFR 761.60 or 761.70. Incineration of these wastes must also be in accordance with 40CFR 264, 265 and 266.

Additional restricted wastes (Solvent, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

C. HARD HAMMER WASTES



This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) _____.

These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

The above referenced waste(s) must be treated to the appropriate treatment standard as set forth in 40CFR 268.41, 268.42, and/or 268.43. The applicable treatment standard for each waste code is listed below or provided on additional attached sheets:

USEPA Hazardous Waste Code _____

The constituent composition used for identification is based upon:

- _____ waste analysis data (attached) or
_____ my thorough knowledge of the waste stream.

The treatment standard is expressed as _____ (Specify treatment technology)

Specify the applicable treatment standard in the appropriate space below:

(For non-wastewater treatment standards, specify by marking whether the standard is a Constituent Concentration in the Waste (CCW) or Extract (CCWE). Note: Certain waste codes may have both.)

Non-Wastewater (Waste Code)		Specify Concentrations in mg/l or mg/kg	
CCW	CCWE	mg/kg	mg/l

Wastewater (Waste Code)	Specify Concentrations as mg/l

If additional space is required or additional Hard Hammer waste codes are listed on the manifest attach Hard Hammer Continuation Attachment.

Additional restricted wastes (Solvents, California List, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

D. SOFT HAMMER WASTES



This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) U228, U239. These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

No treatment standards exist for the above referenced waste(s) and therefore I have determined through a good faith effort that incineration prior to land disposal is the practically available treatment which provides the greatest environmental benefit; that this waste is the subject of a valid Demonstration and Certification that I have submitted to my regional administrator; and that the waste(s) must be treated in accordance with my Demonstration as required by 40CFR 268.8.

U239 USEPA Hazardous Waste Code

The constituent composition used for identification is based upon:

- ☐ waste analysis data (attached) or
☒ my thorough knowledge of the waste stream.
☐ Associated Demonstration Attached (Y/N)
☐ Associated Certification Attached (Y/N)

(Copy of demonstration required for first shipment of waste only)

Please attach Soft Hammer Continuation Attachment for additional Soft Hammer waste codes listed on the manifest.

Additional restricted wastes (Solvents, California List, Hard Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

III. CERTIFICATION OF NOTIFICATION

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Dr. Jodi A. Kham Research Scientist 11/13/89
Signature Title Date
Rev. 1-9/89



ENSCO, INC.
AMERICAN OIL ROAD
EL DORADO, AR 71730

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

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Answers must be provided for all questions/items for each applicable category of restricted waste on the attached form. Remove the instruction pages and print (ink only) or type the answer or mark the appropriate blanks so that all pages are clearly legible. If a particular category of waste is not applicable to your waste stream(s), you must signify by leaving that section blank. If additional information is submitted to complete an answer, indicate on the form that the additional information is attached as Attachment 1, Attachment 2, etc. This completed form and any attachments must accompany the manifest with the shipment.

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Manifest number - indicate the manifest number for applicable waste stream(s) listed on this form. If additional manifests are required for the shipment, each manifest requires its own separate Land Disposal Notification Form.

PART II - NOTIFICATION

A. Spent Solvent Wastes

If you are the generator of restricted Spent Solvent Waste(s) as specified under 40CFR 268.30, shipping to ENSCO, please mark the blank identifying that the Spent Solvent Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided, list all USEPA Hazardous Waste Codes applicable to the Restricted Spent Solvent wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land disposal restrictions, copies of that data must be attached.

B. California List Wastes

If you are the generator of restricted California List Waste(s) as specified under 40CFR 268.32 shipping to ENSCO, please mark the blank identifying that the California List Notification is applicable to your waste stream(s) listed on the manifest.

Waste Code — In the space provided list all USEPA Hazardous Waste Codes applicable to the Restricted California List wastes as shown on the manifest.

Identification of waste — Mark the appropriate blank describing the method you used to determine that your waste stream(s) is restricted from land disposal. Note: If waste analysis data was used to determine the applicability of land



ENSCO, INC.
AMERICAN OIL ROAD
EL DORADO, AR 71730

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

I. GENERAL INFORMATION

GENERATOR NAME Becker Amchem MANIFEST NO. AR-420366
ADDRESS 32100 Stephenson Hwy COMPLETED BY Jack A. Krueger
Madison Heights, MI 48071 TITLE Research Scientist
USEPA ID NO. KID 087 418 514 DATE 11/13/89

II. NOTIFICATION

This form is submitted to ENSCO, Inc. in accordance with regulations as set forth in 40CFR Part 268 governing land disposal of certain restricted hazardous wastes. In accordance with the requirements specified above, I have checked the appropriate blank(s) below outlining how my waste(s) must be managed.

A. SPENT SOLVENT WASTES

☐
(check
here)

This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) _____.

These wastes are restricted from land disposal as specified under 40CFR 268.30 and are identified as Spent Solvent Wastes. The constituent composition listed above is based upon:

- _____ waste analysis data (attached) or
_____ my thorough knowledge of the waste stream.

The above referenced waste(s) must be treated to meet the treatment standard expressed as Constituent Concentration in the Waste Extract as outlined in 40CFR 268.41 Table CCWE below.

**Table CCWE—Constituent
Concentrations in Waste Extract**

F001—F005 spent solvents	Concentration (in mg/l)	
	Wastewaters containing spent solvents	All other spent solvent wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride .....	.05	.96
Chlorobenzene .....	.15	.05
Cresols (and cresylic acid)	2.82	.75
Cyclohexanone .....	.125	.75
1,2-Dichlorobenzene .....	.65	.125
Ethyl acetate .....	.05	.75
Ethylbenzene .....	.05	.053
Ethyl ether .....	.05	.75
Isobutanol	5.0	5.0
Methanol .....	.25	.75
Methylene chloride .....	.20	.96
Methylene chloride (from the pharmaceutical industry)	12.7	.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
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Xylene	0.05	0.15

Additional restricted wastes (California List, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

B. CALIFORNIA LIST WASTES



This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) D007.

These wastes are restricted from land disposal under 40CFR 268.32 and are identified as California List Waste. The constituent compositions used for identification are based upon:

_____ waste analysis data (attached) or

☒ my thorough knowledge of the waste stream.

The above referenced waste(s) must be treated to meet the treatment standards as set forth in 40CFR 268 Subpart D, or where no treatment standard exists, the waste must be treated in accordance with the requirements specified in 40CFR 268.32 as follows:

Liquid hazardous wastes containing the following contaminants must be treated to at least the specified levels or must be rendered non-liquid per the paint filter test.

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☒ (2) One (or more) of these metals (or elements) at concentrations greater than or equal to those specified below:

- a. Arsenic and/or compounds (as As) 500 mg/l;
- b. Cadmium and/or compounds (as Cd) 100 mg/l;
- ☒ c. Chromium VI and/or compounds (as CrVI) 500 mg/l;
- d. Lead and/or compounds (as Pb) 500 mg/l;
- e. Mercury and/or compounds (as Hg) 20 mg/l;
- f. Nickel and/or compounds (as Ni) 134 mg/l;
- g. Selenium and/or compounds (as Se) 100 mg/l;
- h. Thallium and/or compounds (as Th) 130 mg/l.

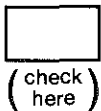
(3) Liquid hazardous wastes having a pH less than or equal to two (2.0).

(4) Wastewaters containing Halogenated Organic Compounds (HOC's) less than 1000 mg/l; or for liquids and non-liquid HOC non-wastewaters greater than 1000 mg/l. The waste must be incinerated in an incinerator operating in accordance with 40CFR 264 and 265 or in a boiler or industrial furnace.

5. Liquid hazardous wastes containing PCB's at concentrations greater than or equal to 50 ppm and less than 500 ppm must be incinerated in accordance with 40 CFR 761.60 or 761.70. Incineration of these wastes must also be in accordance with 40CFR 264, 265 and 266.

Additional restricted wastes (Solvent, Hard Hammer, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

C. HARD HAMMER WASTES



This shipment, as referenced by the above manifest number, contains waste(s) which correspond to USEPA Hazardous Waste Code(s) _____.

These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

The above referenced waste(s) must be treated to the appropriate treatment standard as set forth in 40CFR 268.41, 268.42, and/or 268.43. The applicable treatment standard for each waste code is listed below or provided on additional attached sheets:

USEPA Hazardous Waste Code _____

The constituent composition used for identification is based upon:

_____ waste analysis data (attached) or

_____ my thorough knowledge of the waste stream.

The treatment standard is expressed as _____
(Specify treatment technology)

Specify the applicable treatment standard in the appropriate space below:

(For non-wastewater treatment standards, specify by marking whether the standard is a Constituent Concentration in the Waste (CCW) or Extract (CCWE). Note: Certain waste codes may have both.)

Non-Wastewater (Waste Code)	Specify Concentrations in mg/l or mg/kg	
	CCW	CCWE

Wastewater (Waste Code)	Specify Concentrations as mg/l

If additional space is required or additional Hard Hammer waste codes are listed on the manifest attach Hard Hammer Continuation Attachment.

Additional restricted wastes (Solvents, California List, Soft Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

D. SOFT HAMMER WASTES

☐
(check here)

This shipment, as referenced by the above manifest number, contains waste(s) corresponding to USEPA Hazardous Waste Code(s) _____. These wastes are restricted from land disposal under 40CFR 268.33 and 268.34.

No treatment standards exist for the above referenced waste(s) and therefore I have determined through a good faith effort that incineration prior to land disposal is the practically available treatment which provides the greatest environmental benefit; that this waste is the subject of a valid Demonstration and Certification that I have submitted to my regional administrator; and that the waste(s) must be treated in accordance with my Demonstration as required by 40CFR 268.8.

_____ USEPA Hazardous Waste Code

The constituent composition used for identification is based upon:

- _____ waste analysis data (attached) or
- _____ my thorough knowledge of the waste stream.
- _____ Associated Demonstration Attached (Y/N)
- _____ Associated Certification Attached (Y/N)

(Copy of demonstration required for first shipment of waste only)

Please attach Soft Hammer Continuation Attachment for additional Soft Hammer waste codes listed on the manifest.

Additional restricted wastes (Solvents, California List, Hard Hammer) may be listed on the manifest with notifications for those wastes being listed elsewhere on this form.

III. CERTIFICATION OF NOTIFICATION

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Dr. Jacob A. Kramer Research Scientist 11/13/89
Signature Title Date